WHAT IS CLAIMED IS:

1. An isolated polynucleotide selected from the group consisting of:

(a) an isolated polynucleotide encoding a human G-protein coupled receptor, or functional fragment thereof, comprising the amino acid sequence as set forth in SEQ ID NO:2;

(b) An isolated composition comprising the polynucleotide according to (a).

(c) An isolated polynucleotide comprising SEQ ID NO:1;

(d) An isolated polynucleotide having the nucleic acid sequence of ATCC Accession No. PTA-2966;

(e) An isolated polynucleotide having the nucleic acid sequence according to nucleotides 4 to 1524 of SEQ ID NO:1, wherein said nucleotides encode a polypeptide of SEQ ID NO:2 minus the start codon;

(f) An isolated polynucleotide having the nucleic acid sequence according to nucleotides 1 to 1524 of SEQ ID NO:1, wherein said nucleotides encode a polypeptide of SEQ ID NO:2 including the start codon;

(g) An isolated polynucleotide having the nucleic acid sequence according to nucleotides 1 to 1524 of SEQ ID NO:48, wherein said nucleotides encode a polypeptide of SEQ ID NO:49 including the start codon;

(h) An isolated polynucleotide having the nucleic acid sequence according to nucleotides 4 to 1524 of SEQ ID NO:48, wherein said nucleotides encode a polypeptide of SEQ ID NO:49 minus the start codon;

(i) A polynucleotide which is fully complementary to the polynucleotide according to (a) thru (h); and

(j) A hybridization probe comprising the polynucleotide according to (a) thru (i).

2. An expression vector containing the polynucleotide according to claim 1.

3. A host cell containing the expression vector according to claim 2.

4. A substantially purified G-protein coupled receptor polypeptide selected from the group consisting of:

(a) A substantially purified G-protein coupled receptor polypeptide comprising an amino acid sequence as set forth in SEQ ID NO:2.

(b) The polypeptide according to (a), wherein the amino acid sequence differs from SEQ ID NO:2 only by conservative substitutions;

(c) An isolated and substantially purified G-protein coupled receptor polypeptide encoded by the nucleic acid sequence of ATCC Accession No. PTA-2966;

(d) An isolated polypeptide having the amino acid sequence according to amino acids 2 to 508 of SEQ ID NO:2, wherein said amino acid encode a polypeptide of SEQ ID NO:2 minus the start methionine;

(e) An isolated polypeptide having the amino acid sequence according to amino acids 1 to 508 of SEQ ID NO:2, wherein said amino acid encode a polypeptide of SEQ ID NO:2 including the start methionine;

(f) An isolated polypeptide having the amino acid sequence according to amino acids 2 to 508 of SEQ ID NO:49, wherein said amino acid encode a polypeptide of SEQ ID NO:2 minus the start methionine;

(g) An isolated polypeptide having the amino acid sequence according to amino acids 1 to 508 of SEQ ID NO:49, wherein said amino acid encode a polypeptide of SEQ ID NO:2 including the start methionine;

(h) A substantially purified fragment of the G-protein coupled receptor polypeptide according to any one of (a) to (g).

5. A substantially purified fusion protein comprising an amino acid sequence as set forth in SEQ ID NO:2 and an amino acid sequence of an Fc portion of a human immunoglobulin protein.

6. A pharmaceutical composition comprising the polypeptide, or a functional fragment thereof, according to claim 1, and a pharmaceutically acceptable diluent or excipient.

7. A purified antibody which binds specifically to the polypeptide according to claim 4, or an antigenic epitope thereof.

8. A method of screening for candidate compounds capable of modulating the activity of a G-protein coupled receptor polypeptide, comprising:

(a) contacting a test compound with a cell or tissue comprising an expression vector capable of expressing a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO:2, or encoded by ATCC deposit PTA-2966, under conditions in which said polypeptide is expressed; and

(b) selecting as candidate modulating compounds those test compounds that modulate activity of the G-protein coupled receptor polypeptide.

9. The method according to claim 8 wherein said cells are CHO cells.

10. The method according to claim 9 wherein said cells comprise a vector comprising the coding sequence of the beta lactamase gene under the control of one or more NFAT response elements.

11. The method according to claim 11 wherein said cells further comprise a vector comprising the coding sequence of G alpha 15 under conditions wherein G alpha 15 is expressed.

12. The method according to claim 9 wherein said cells are HEK cells.

13. The method according to claim 12 wherein said cells express a polypeptide comprising an amino acid sequence set forth in SEQ ID NO:2, an amino acid sequence encoded by ATCC deposit PTA-2966, or beta lactamase, at either high or low levels of expression relative to the expression of a reference polypeptide.

14. The method according to claim 12 wherein said cells further comprise a vector comprising the coding sequence of the polypeptide provided as SEQ ID NO:103.

15. The method according to claim 12 wherein said candidate compound is selected from the group consisting of: a small molecule; a peptide; and an antisense molecule.

16. The method according to claim 15 wherein said candidate compound is an agonist.

17. The method according to claim 15 wherein said candidate compound is an antagonist.

18. A pharmaceutical composition comprising the candidate compound according to claim 15.

19. A method of treating a neurological disorder in a mammal comprising administration of the pharmaceutical composition of claim 18.

20. The method according to claim 19 wherein said disorder is a member of the group consisting of: disorders of the caudate nucleus selected from the group consisting of: a neurological disorder; nucleus accumbens disorders, caudate nucleus disorders, neurotransmitter disorders, neurotransmitter expression disorders, neurotransmitter release disorders, disorders associated with aberrant dopamine synthesis, disorders associated with aberrant dopamine release, disorders associated with aberrant dopamine function, disorders associated with aberrant opioid peptide synthesis, disorders associated with aberrant opioid peptide release, disorders associated with aberrant opioid peptide function, disorders associated with aberrant serotonin synthesis, disorders associated with aberrant serotonin release, disorders associated with aberrant serotonin function, disorders associated with aberrant GABA synthesis, disorders associated with aberrant GABA release, disorders associated with aberrant GABA function, disorders associated with the release of GABA from L-glutamic acid, schizophrenia, Parkinson's disease, progressive supranuclear palsy, Alzheimer's, affective disorders, depression, aggressive behavioral disorders, addictive disorders, sleep disorders, eating disorders neuropathic pain; psychotic disorders; fear, stress disorders, severe mental retardation; dyskinesias, Huntington's disease; Gilles dela Tourett's syndrome; Sydenham chorea; major depressive disorder; obsessive-compulsive disorder; movement type disorders; anxiety; schizophrenia; manic depression; delirium; dementia; brain cancer, proliferative disorder of the brain, and neoplastic diseases of the brain.

21. The method according to claim 20 wherein said disorder is an anxiolytic disorder.

22. The method according to claim 20 wherein said disorder is a disorder further associated with aberrant expression or activity of one or more of the following: p21, p27, and IkB.

23. An antisense compound 8 to 30 nucleotides in length that specifically hybridizes to a nucleic acid molecule encoding the human HGPRBMY8 polypeptide of the present invention, wherein said antisense compound inhibits the expression of the human HGPRBMY8 polypeptide.

24. The antisense compound of claim 23, wherein said antisense compound is a member of the group consisting of any one of the sequences provided as SEQ ID NO:115 to SEQ ID NO:124.

25. A peptide that specifically inhibits the activity of the human HGPRBMY8 polypeptide provided as SEQ ID NO:2, wherein said peptide is a member of the group consisting of any one of the sequences provided as SEQ ID NO:66 to SEQ ID NO:71.